UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

JAN 17 2017

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. David Thawley
Derive Systems, Inc.
Derive Power, LLC
Derive Efficiency, LLC
BD Acquisition, LLC
4150 Church Street, Suite 1024
Sanford, FL 32771

Agent for Service of Process:
The Corporation Trust Company
Corporation Trust Center
1209 Orange St
Wilmington, DE 19801

Re: Notice of Violation of the Clean Air Act

Dear Mr. Thawley:

The United States Environmental Protection Agency (EPA) has investigated and continues to investigate Derive Systems, Inc., Derive Power, LLC, Derive Efficiency, LLC, BD Acquisition, LLC, SCT Holdings, Inc., SCT Delaware Holdings, Inc. d/b/a Derive Systems, and SCT Fleet Solutions LLC d/b/a Derive Efficiency (collectively referred to as "Derive") for compliance with the Clean Air Act (CAA), 42 U.S.C. §§ 7401–7671q, and its implementing regulations. As summarized in this Notice of Violation (NOV), the EPA has determined that Derive sold parts or components for motor vehicles and motor vehicle engines that bypass, defeat, or render inoperative elements of design that were installed by the vehicle or engine original equipment manufacturer (OEM) in order to comply with CAA emission standards. The EPA has also determined that Derive knew or should have known that these parts or components were offered for sale or installed for such use or put to such use. Therefore, Derive violated section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B).

Law Governing Alleged Violations

This Notice of Violation arises under Part A of Title II of the CAA, 42 U.S.C. §§ 7521–7554, and the regulations promulgated thereunder. These laws were enacted to reduce air pollution from mobile sources of air pollution. In creating the CAA, Congress found, in part, that "the increasing use of motor vehicles . . . has resulted in mounting dangers to the public health and welfare."[1] Congress' purpose in creating the CAA, in part, was "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population," and "to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution."[2]

The EPA's allegations here concern parts or components for motor vehicles and motor vehicle engines for which EPA has promulgated emission standards: light-duty vehicles, light-duty trucks, medium-duty passenger vehicles, heavy-duty vehicles, and heavy-duty diesel engines.[3] The CAA requires EPA to prescribe and revise, by regulation, standards applicable to the emission of any air pollutant from new motor vehicles or new motor vehicle engines that cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.[4] As required by the CAA, the emission standards "reflect the greatest degree of emission reduction achievable through the application of [available] technology."[5] There are specific emission standards for each of these motor vehicles and engines for each pollutant and year of manufacture.[6]

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a).

EPA Certification Program

EPA administers a certification program to ensure that every motor vehicle and motor vehicle engine introduced into United States commerce satisfies applicable emission standards. Under this program, EPA issues certificates of conformity (COCs), and thereby approves the

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[1] CAA § 101(a)(2), 42 U.S.C. § 7401(a)(2).
[2] CAA § 101(b)(1)–(2), 42 U.S.C. § 7401(b)(1)–(2).
[3] See generally 40 C.F.R. Part 86, Subpart A (setting emission standards for these categories).
[4] CAA §§ 202(a)(1) and (3)(B), 42 U.S.C. §§ 7521(a)(1) and (3)(B).
[5] CAA § 202(a)(3)(A)(i), 42 U.S.C. § 7521(a)(3)(A)(i).
[6] See, e.g., heavy-duty diesel engine emission standards at 40 C.F.R. §§ 86.004-11, 86.007-11, 86.099-11 and light-duty vehicle emission standards at 40 C.F.R. § 86.1811-04. See also 40 C.F.R. §§ 86.090-8 (1990 and later model year light-duty vehicles); 86.094-9 (1994 and later model year light-duty trucks); 86.001-9 (2001 and later model year light-duty trucks); 86.004-9 (2004 and later model year light-duty trucks); 86.091-10 (1991 and later model year Otto-cycle heavy-duty engines and vehicles); 86.008-10 (2008 and later model year Otto-cycle heavy-duty engines and vehicles).

introduction of motor vehicles or motor vehicle engines into United States commerce. To obtain a COC, a vehicle manufacturer must submit a COC application to EPA for each engine family or test group of vehicles that it intends to enter into United States commerce.[7]

Motor vehicle manufacturers employ many devices and elements of design to meet emission standards to obtain COCs. *Element of design* means "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine."[8] For example, manufacturers employ retarded fuel injection timing as a primary emission control device for emissions of oxides of nitrogen (NOx). Manufacturers also employ certain hardware devices as emission control systems to manage and treat exhaust to reduce levels of regulated pollutants from being created or emitted into the ambient air. For diesel-fueled motor vehicles, these devices include diesel particulate filters, exhaust gas recirculation, and selective catalytic reduction. For gasoline-fueled vehicles, these devices include exhaust gas recirculation and use of a catalytic converter. All modern motor vehicles are equipped with electronic control modules (ECMs). ECMs continuously monitor engine and other operating parameters and control the emission control devices, such as the fueling strategy.

Also, an Onboard Diagnostic (OBD) system with the capacity to detect, identify and record malfunctions must be installed and operated on motor vehicles under section 202(m) of the CAA, 42 U.S.C. § 7521(m), and the implementing regulations.[9] Manufacturers are required to demonstrate (using EPA specified test procedures) that the OBD system detects and identifies malfunctions, including any sensor or other component deterioration or malfunction which renders that sensor or component incapable of performing its function as part of the OBD system, including the oxygen sensor on vehicles equipped with an oxygen sensor.[10] Oxygen sensors are categorized in EPA's regulations as a "major" diagnostic monitor tracked by an OBD system, along with monitors for the catalyst/exhaust aftertreatment devices, engine misfire, and evaporative leaks.[11]

Alleged Violations

Derive manufactured, sold, offered for sale, or installed software and hardware designed for use with gasoline and diesel motor vehicles, both trucks and automobiles, manufactured by General Motors (Buick, Cadillac, Chevrolet, GMC, Hummer, Pontiac), Ford (Ford, Lincoln, Mercury), FCA (Chrysler, Dodge), and Isuzu. Derive's software or hardware products were identified as (among other terms) SCT Livewire TS Ford Performance Programmer & Monitor, SCT Livewire TS GM Performance Programmer & Monitor, SCT X4 GM Flash Programmer, SCT X4 Ford Flash Programmer, SCT SF3 Power Flash Ford Programmer, SCT SF3 Power Flash

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[7] See 40 C.F.R. §§ 86.004-21 and 86.1844-01. Motor vehicles can be certified in a motor vehicle test group or engine family. For simplicity, for the remainder of this NOV, EPA will use the nomenclature "motor vehicles" to refer to both motor vehicles and motor vehicle engines.

[8] 40 C.F.R. § 86.1803-01. See also 40 C.F.R. § 86.094-2.

[9] See 40 C.F.R. §§ 86.005-17, 86.007-17, 86.1806-01, 86.1806–05; and § 86.1806-17 (for model year 2017 and later vehicles).

[10] See 40 C.F.R. § 86.1806–01(b)(7).

[11] See 40 C.F.R. §§ 86.1806–01(i) and 86.1806–05(i) (using the more general term "exhaust aftertreatment devices" and including diesel exhaust gas recirculation, if equipped).

General Motors Programmer, Bully Dog GT Platinum Diesel, Bully Dog Dodge Cummins Unlock Cable, SCT Advantage III Ford Pro Racer Software, and "dealer" versions of the SCT Advantage III software, such as the Ford All-Gas & Diesel Package and the Complete GM & Ford Software Package. Examples of the Derive software and hardware described herein are identified in Table 1, below. A principal effect of these products is to bypass, defeat, or render inoperative elements of the motor vehicle's design that controls emissions of regulated air pollutants.

Table 1: Examples of Software and Hardware Products' Effect on Emission Control Devices

PRODUCT	EFFECT ON EMISSIONS CONTROL DEVICES
SCT Livewire TS Ford Performance Programmer & Monitor (5015 & 5015P)	Exhaust Gas Recirculation (EGR) disable or removal [1] Rear oxygen sensors/associated Malfunction Indicator Light (MIL) (check engine light) disable or removal[2]
SCT X4 Ford Flash Programmer (7015)	EGR disable or removal [1] & Rear oxygen sensors/ associated MIL (check engine light) disable or removal[2]
SCT SF3 Power Flash Ford Programmer (3015)	EGR disable or removal & Rear oxygen sensors/ associated MIL (check engine light) disable or removal
3015R	Override OBD and allows removal of the Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF), and Selective Catalytic Reduction (SCR) systems
Bully Dog GT Platinum Diesel (40420)	Alters design parameters in the OEM's calibration causing NOx emissions to increase and exceed the applicable NOx standard on the Federal Test Procedure[3]
SCT Advantage III Ford Pro Racer Software (4332)	This software allows the user to: (1) Disable the EGR system[1] (2) Disable certain emission-related OBD checks to disable the MIL (check engine light) & (3) Users can create "user defined parameters" that can allow removal of other emission control systems, such as DOC, DPF, and SCR
Ford All-Gas & Diesel Package (4100D)	"Dealer" versions of the SCT Advantage III software with same effects as Product 4332 above. Each software unit sold has the capability of producing multiple additional products capable of disabling OBD systems and allows removal of EGR, DOC, DPF, and SCR in diesel engine calibrations
Complete GM & Ford Software Package (4100GF)	
SCT SF3 Power Flash General Motors Programmer (3416)	This hardware, as programmed by Derive, allows the user to disable or remove certain emission control devices on certain vehicles. One example is rear oxygen sensors/associated MIL (check engine light) disable or removal.
SCT Livewire TS GM Performance Programmer & Monitor (5416 & 5416P)	
X4 GM Flash Programmer (7416)	

(1) When used on 2003 - 2007 MY F Series trucks with 6.0 liter Powerstroke diesel engines.
(2) When used on 2005 - 2015 MY Ford Mustangs with 4.6 and 5.0 liter engines.
(3) When used on a 2013 MY F250 with a 6.7 Liter Powerstroke diesel engine.

Specifically, Derive rendered inoperative the OEM's software, which controlled elements of design such as fueling strategy, and inserted its own software, which altered these elements of design. In addition, Derive rendered inoperative the OEM's software, which received input from emission control devices, and replaced it with its own software that allowed motor vehicles to function with altered inputs from emission control devices. As stated above, the OBD system, which has the capacity to detect, identify and record malfunctions, fuel injection timing, and hardware (including EGR and exhaust aftertreatment devices), is a device and element of design that motor vehicle manufacturers employ to meet emission standards; the OBD system must be described in detail in motor vehicle manufacturer applications to EPA for COCs.

Derive knew or should have known that these products were offered for sale or installed in order to bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants. The products altered the OEM's ECMs insofar as they changed the motor vehicle and engine fueling, and subsequent emission control strategies. As described above, for example, motor vehicle manufacturers design their ECMs to retard fuel timing as a primary way to control emissions.

In some instances, Derive's user instructions explicitly state that a product component's purpose is the removal of the OBD system's capacity to detect, identify, and record that emission controls have been bypassed, defeated, or rendered inoperative. For example, Derive's X4 Quick Start Guide states "Diesel & Gas Vehicle Options: EGR Delete Removes the check engine light from deleting EGR mechanically."[12]

Additionally, the software may itself bypass, defeat, or render inoperative such emission controls. For example, the software help menu for the SCT Advantage III Ford Pro Racer Software states:

> *"There are only a few parameters for EGR control. The first is the ability to shut the EGR completely off, EGR_TYPE_SWITCH. If this switch is set to two (2), then this shuts off the EGR system.... by eliminating the hot exhaust gas from flowing into the engine, the temperature of the intake manifold and cylinder heads can be reduced and power can be gained from the engine running cooler."*

Further, Derive knew or should have known that these products were offered for sale or installed on motor vehicles. Each product was designed and marketed for use on a specific make, model, and year of motor vehicles, thus altering the OEM configuration certified by EPA for a specific model year.

The instructions that Derive provides with its products to return the motor vehicle to the original certified configuration are evidence that Derive knew or should have known that its products would be used to bypass, defeat, or render inoperative OEM devices and designs, and do so for EPA-certified motor vehicles designed and marketed for use on public roads. For example, Derive's SCT 2014 Product Catalog states:

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[12] X4 Power Flash Quick Start Guide at DERIVE-629.

EASY RESTORATION BACK TO STOCK
The Livewire TS Flash device backs up your factory PCM program during installation should you ever need to return your vehicle to the stock program. Restoring your vehicle to the stock PCM program is as easy as selecting "Return to Stock" from the device menu. With all SCT devices, once returned to stock, there is no footprint or trace of the tune in the vehicle's PCM.[13]

Additionally, the X4 User Manual for Ford 7015, GM 7416 and Chrysler 7215 states

> *"Before taking your vehicle to the dealer service department for any type of service or warranty work, you should first return the vehicle back to the stock configuration."*[14] *and "The stock file is stored during initial programming. The stock file stays on the programmer until returned to stock. You should always return your vehicle back to stock before taking your vehicle in to any auto service facility..."*[15]

For all of these reasons, Derive knew or should have known that they manufacture or sell, or offer to sell, or install parts or components whose principal effect is to bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants.[16]

Derive sells products configured to load custom software that enable further alteration of motor vehicle emission controls, and also offers software programming that facilitates the creation of custom software programs that bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants. As noted above, the Advantage III software allows modification of thousands of PCM (power train control module) tuning parameters. As Derive is aware that products sold in California as California Air Resources Board (CARB) compliant cannot defeat motor vehicle emission control technologies, they must also be aware that the use of custom software programming that removes or alters the motor vehicle emissions control is not compliant with the CAA. For example, the SCT 2013 Product Catalog states:

> *For products that do not effect [sic] the vehicle's emissions output, CARB issues an Executive Order number to allow these products to be sold, purchased and used for on road use on vehicles in California. SCT has applied for and received multiple CARB Executive Order numbers for our Pre-Loaded programmers.*[17]

Derive's policies regarding dealer advertising prohibit advertising that allows Derive products to be sold together with other devices that defeat emission control technologies, but Derive is silent

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[13] SCT 2014 Product Catalog at DERIVE-555.
[14] X4 User Manual for Ford 7015, GM 7416 and Chrysler 7215 at DERIVE-633.
[15] Id. at DERIVE-637.
[16] EPA has initiated enforcement actions that are now concluded for similar operations. See In re H & S Performance, LLC, Consent Agreement and Final Order (EAB Dec. 17, 2015) (CAFO resolving civil liability for purveyors of custom software defeat devices that utilized Bully Dog platforms); see also United States v. Edge Products, LLC., No. 1:13cv00010-TS (Dist. Utah April 23, 2013); United States v. Casper's Electronics, Inc., No. 1:06cv3542 (N.D. Ill Aug. 28, 2007)..
[17] SCT 2013 Product Catalog at DERIVE-520.

on the bundling of custom software programs that bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants. Derive has provided no evidence that the Derive dealers must demonstrate that custom software programs created using Derive software are tested using EPA approved methods, or that their custom software programs are in compliance with the CAA in order to maintain access to Derive services such as technical support. However, Derive does exercise control over other product features after products are sold to consumers. For example, Derive's products track the *number of unlocks* remaining (an unlock is used when the "tuned" vehicle is returned to the stock configuration and a different vehicle is programmed) and the *married status* of the device (an unmarried device is unlocked and ready for motor vehicle pairing, while a married device is locked to a single motor vehicle).[18] Derive allows a purchaser of its SCT X4 product to change vehicles five times before the unit is permanently locked. Additionally, to reset any changes or unlock the device, the purchaser will need to contact Derive.[19]

Derive takes an active role in the delivery of dealer-created custom software programs that bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants. Targeting the dealers who create custom such software, Derive's 2015 Product Catalog states:

> *POWER IN THE CLOUD! THE FIRST & ONLY CLOUD-BASED TUNE DELIVERY SYSTEM*
> *Delivering tune files to your customers just got easier with the power of the cloud! The days of emailing tune files are over using SCT's new Derive Advantage cloud delivery system. Simply enter the device serial number, create a security PIN number and click send! Custom tunes are delivered right to your customer's programmer and ready to be loaded into the vehicle.*
> • *Automated delivery & installation of custom tune files onto SCT / Bully Dog's WiFi enabled programmers*
> • *Securely stores tune files for dealers & consumers in the cloud*
> • *Reduce technical support call & time spent emailing tune files*
> • *Maximum security – all tunes are encrypted / PIN required to install onto device*[20]

Additionally, Derive has targeted the consumer seeking to purchase Derive products for use with custom software. As stated in Derive's 2015 Product Catalog:

> *CUSTOM TUNING*
> *Outgrown the pre-loaded tunes on your Bully Dog GT device? Looking for more power from your aftermarket modifications? No problem! Custom tuning is now available on most Bully Dog GT devices. Simply contact one of SCT's Custom Tuning Dealers worldwide, request a custom tune for your vehicle and download it via the cloud onto your Bully Dog GT device.*[21]

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[18] See X4 Power Flash Quick Start Guide SCT powered by Derive.
[19] Id. at DERIVE-637 (noting "Service charges do apply").
[20] See 2015 Product Catalog at 2.
[21] Id.

Derive knows or should know that its products that are configured to load custom software can load custom software that circumvents the prohibitions of the CAA. Derive knows or should know that the various dealer software and associated services provide consumers with the capability to produce, through the use of Derive products, multiple additional software programs (i.e., tunes): (i) capable of disabling the OBD system's capacity to detect, identify and record malfunctions, and (ii) to bypass, defeat, or render inoperative elements of design such as fuel injection timing and hardware (including EGR and exhaust aftertreatment devices) that motor vehicle manufacturers employ to meet emission standards.

Enforcement

The EPA may bring an enforcement action for these violations under its administrative authority or request the United States Department of Justice file a civil complaint in federal district court. CAA §§ 204 and 205, 42 U.S.C. §§ 7523 and 7524. Persons violating section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to an injunction under section 204 of the CAA, 42 U.S.C. § 7523, and a civil penalty of up to $3,750 for each violation. CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4.

The EPA is available to discuss this matter with you in further detail, upon your request. Please have your attorney contact Kathryn Caballero or Margaret Alkon, the EPA attorneys assigned to this matter, within 10 days of receipt of this Notice of Violation. Ms. Caballero can be reached at (202) 564-1849 and Ms. Alkon can be reached at (415) 972-3890.

Sincerely,

Phillip A. Brooks
Director
Air Enforcement Division
Office of Civil Enforcement

cc: Roger Martella and Susan Harris, Sidley Austin LLP